

NOTES ON SOME CICINDELIDAE OF THE WESTERN UNITED STATES AND THE SOUTH PACIFIC ISLANDS WITH A DESCRIPTION OF A NEW SPECIES. (1)

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These notes are based chiefly upon specimens which have been collected in summer field work, during the past twenty years. Many days have been spent in Utah and neighboring states collecting insects and cold-blooded vertebrates during these years. We have also received a number of interesting species of tiger-beetles from former students who have collected on many of the South Pacific Islands. With this collection as a basis, I am pleased to make the following additions to my list of the Cicindelids from Utah which was published in 1929². At that time I reported 40 species for Utah. In this paper six species are added to this state list. I wish to thank all those who have contributed specimens to our Coleoptera collection.

AMBLYCHEILA UTAHENSIS Tanner, n. sp.

Form elongate-oval; head as wide as the adjoining prothorax which becomes narrower posteriorly, being 5.5 mm. in width at anterior and 4 mm. at posterior; head and prothorax glabrous and shiny, except for a few punctures with black setae above the clypeal suture; labrum with two blunt median teeth, margin with nine deep punctures each bearing a long golden colored seta; each elytron with three distinct carinae, the interval between the first carina and the suture is as wide as the next two intervals combined. There are a few scattered punctures with decumbent setae on the intervals; carinae end about one fifth from the apex; apex very sparsely punctured; the eleven segments of the antenna are a dull brownish in color with scattered black setae; the antenna extends back to the middle of the elytra. Legs black except the base of the femur and trochanter which are brownish, slender, and thickly covered with black setae; under side of body with a few scattered setae. Length of head and body 22 mm.

TYPE: A perfect male specimen.

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(2) Vasco M. Tanner. The Coleoptera of Utah—Cicindelidae. The Pan-Pacific Entomologist. Vol. VI, No. 2, October, 1929, pp. 78-87.

TYPE LOCALITY: Diamond Valley, 15 miles north of St. George, Washington County, Utah. Collected in April, 1951 by one of Professor Arthur Bruhn's entomology students, Richard Schmutz. Professor Bruhn of the Dixie College at St. George has collected many interesting insects in that area.

COMPARISONS: On July 27, 1951 I had the opportunity of comparing the type of *utahensis* with male and female specimens of *A. schwarzi* W. Horn in the California Academy of Science's Entomological Collection. In *utahensis* the thorax is one-fourth narrower than in male specimens of *schwarzi*. The head is also narrower, in fact, *utahensis* is smaller throughout than *schwarzi* specimens with which I compared it. The punctuation on the upper part of the head in *schwarzi* is more dense and deep. The color of the coxal areas and the mouthparts in *schwarzi* is reddish. *schwarzi* is a more robust species.

I wish to thank Dr. Edwin C. Van Dyke for his kindness and opinion on the status of this proposed new species of *Amblycheila*.

In 1929 I reported that Mr. Warren Knaus had informed me that Mr. George P. Englehardt and Mr. Jacob Doll had collected, in 1917, two dead specimens of an *Amblycheila* in a pool in Ash Creek near Bellevue, Washington County, Utah, and that there were believed to be specimens of *schwarzi*. Just how carefully these specimens were studied and compared with *schwarzi* specimens is not known to me. It is my surmise, however, that they are similar to the specimen I am designating as *utahensis*. The two localities from which these specimens were collected is separated by a distance of about sixty miles. The two specimens of *schwarzi*, which I recently studied, in the California Academy of Sciences, are from Skidoo, Inyo, Co., California, collected by J. R. Slevin on May 14, 1931. If they are correctly determined and are *schwarzi* then the specimen described as *utahensis* in this report is distinct enough to be recognized as a new species.

CICINDELA FORMOSA subsp. LUXURIOSA Csy.

Southeast of Colorado Springs, Colorado, August 17, 1924 (A. G. Vestal)

A single male specimen collected in a "blow out" south and east of Colorado Springs by Dr. Vestal was given to the writer in 1925. I have compared it with Col. Casey's type and believe it is distinct enough in fineness of markings, size, and color to be recognized as a sub-species of *formosa*. It is a richly colored sub-species.

CICINDELA LIMBALIS Klug

Island Park, Fremont County, Idaho, August, 1931. (Vasco M. Tanner)

A single specimen of this species was taken in the forest along the highway. It is a male and much smaller than a female from Chicago, Illinois, with which I have compared it.

CICINDELA LIMBALIS subsp. AUGURALIS Csy.

Warner Ranger Station, La Sal Mountains, Grand County, Utah, July, 1934. (Vasco M. Tanner); Bryce Canyon National Park, Garfield County, Utah, August, 1933. (Vasco M. Tanner); The pass, Table Cliff Mountain, Garfield County, Utah. Elevation 9,300 feet, June, 1936. (Vasco M. Tanner). Aquarius Plateau, Garfield County, Utah, June, 1938. (Wilmer W. Tanner).

These specimens, 2 ♀ and 1 ♂, were taken at an elevation of 9,000 feet. I have compared them with Col. Casey's type specimen now in the National Museum. I am in agreement with Nicolay and Weiss 1932 that *auguralis* is a sub-species of *limbalis* and not of *purpurea*.

CICINDELA REPANDA subsp. HUDSONICA Csy.

Island Park, Fremont County, Idaho, August, 1931. (Vasco M. Tanner)

This is a single male specimen I have compared with Casey's type. It agrees almost perfectly in structure and color with the type which is a female specimen. I am considering it a sub-species of *repanda* since it has more features of this species than of *duodecimguttata*. I think it is distinct enough to be removed from synonymy.

CICINDELA LONGILABRIS subsp. OSLARI Leng

Logan Canyon, Tony's Ranger Station, Cache County, Utah, June, 1926. (Clarence Cottam); Uintah Mountains, Tryol Lake, July, 1930. (Truman Swallow, C. L. Hayward and John C. Fehser).

This high mountain form of *longilabris* is common in the Uintah Mountains of Utah. The specimens reported here have been compared with specimens of *oslari* in the Casey Collection, United States National Museum and the California Academy of Sciences. They are distinct enough from *longilabris* varieties to be considered as a separate sub-species.

CICINDELA CARTHAGENA subsp. PACIFICA Schp.

Las Vegas, Clark Co., Nevada; June 5, 1905 (Tom Spalding)

Five specimens are in the collection which were collected by Tom Spalding on the grassy area north and west of the town of Las Vegas.

CICINDELA SPERATA subsp. RUBICUNDA (E. H. Harris)

Caineville, Wayne Co., Utah, 1928 (Vasco M. Tanner);
Escalante, Garfield Co., Utah, August, 1939 (Harry P. Chandler);
Arches National Monument, Grand Co., Utah, August, 1950.
(Dorald Allred)

This is a brilliant distinctive form of the *sperata* complex. Seventeen specimens are in the collection.

CICINDELA LEPIDA Dej.

Delta, Millard County, Utah, August, 1949 (Dorald Allred)

This is the first record we have of this species occurrence in Utah. Mr. Allred reports that he collected the four specimens, now in the collection, at night on the sand dunes north of Delta.

CICINDELA LIMBIGERA subsp. NYMPHA Csy.

Kanab, Kane Co., Utah, May, 1951 (D. E. Beck)

I have compared the single specimen taken by Dr. Beck with several specimens of this sub-species in the California Academy of Science's Collection, which were collected by Mr. Norman Criddle at Aweme, Manatoba. This new record for Utah greatly extends the distribution of this sub-species. It was collected on the sand dunes to the west and north of Kanab.

CICINDELIDAE FROM THE PACIFIC ISLANDS.

The following Pacific Island Cicindelids were recently added to the Brigham Young University collection. These have been studied by the writer and compared with materials in the United States National Museum and the California Academy of Sciences.

TRICONDYLA APTERA Olivier

Solomon Islands, Guadalcanal, Tenaru River area, June and July, 1944, (D. Elden Beck) and (Ernest Reimschiissel). Fifty-five specimens are in this collection.

Admiralty Islands, Los Negros, September, 1944, (Ernest Reimschiissel.). Thirty-six specimens are in this collection.

Dr. Beck reports that he collected this species on the leaves and ground cover of the jungle forest. It was fairly common.

TRICONDYLA APTERA subsp.

Philippine Islands, Luzon, Camp near Manila, May, 1945, (Ernest Reimschiissel); Leyte Island; Tacloban, March, 1945, (Ernest Reimschiissel).

COLLYRIS ALBITARSIS Erichs.

Philippine Islands, Luzon, Camp near Manila, May, 1945, (Ernest Reimschiessel).

COLLYRIS SIMILIOR W. Horn

Philippine Islands, Luzon, Camp near Manila, May, 1945, (Ernest Reimschiessel).

COLLYRIS ACROLIA Chaud.

Philippine Islands, Luzon, Camp near Manila, May, 1945, (Ernest Reimschiessel).

COLLYRIS sp.

Philippine Islands, Leyte Island, Tacloban, March, 1945, (Ernest Reimschiessel).

THERATES LABIATUS Fabricius

Solomon Islands, Guadalcanal, June and August, 1944, (D. Elden Beck), (Ernest Reimschiessel); Admiralty Islands, Los Negros, Sept., 1944, (Ernest Reimschiessel).

THERATES BASALIS variety SIMPLO-FLAVESCENS W. Horn

Solomon Islands, Guadalcanal, June, 1944, (D. Elden Beck), (Ernest Reimschiessel); Admiralty Islands, Los Negros, September, 1944, (Ernest Reimschiessel).

CICINDELA DECEMGUTTATA subsp. SANGUINEO-MACULATA
Blanchard

Solomon Islands, Guadalcanal, July, 1944, (Ernest Reimschiessel), (Doyle Taylor), (D. Elden Beck).

Sixty-eight specimens are in the collection.

CICINDELA DISCRETA Schaum

Solomon Islands, Guadalcanal, five specimens collected Aug., 1944, (D. Elden Beck).